

Abstract

A catalyst system and a process for the bulk addition
polymerization of polycyclic olefins, such as norbornene,
5 methylnorbornene, ethylnorbornene, butylnorbornene or hexylnorbornene,
1,2,3,4,4a,5,8,8a-octahydro-1,4:5,8-dimethanonaphthalene,
5,5'-(1,2-ethanedijyl)biscyclo[2.2.1]hept-2-ene, and
1,4,4a,4b,5,8,8a,8b-octahydro-1,4:5,8-dimethanobiphenylene are
disclosed. The catalyst includes an organonickel or organopalladium
10 transition metal procatalyst and an activator compound. Polymerization
can be carried out in a reaction injection molding process to yield
thermoplastic and thermoset molded polymeric articles possessing high
glass transition temperatures.